

Welcome

Welcome to the March edition of the Smithfield Environmental Newsletter. This newsletter is provided to you by the Environmental Affairs Department to assist in communication between facilities on environmental issues. To submit articles for future newsletters, please contact Natalie Mackie at (757) 357-1542 or Ruth Debritto (757) 365-3593.

March/April

- March 7-8 Stadler's Internal Audit
- March 9 North Carolina Stewardship Meeting & Awards Ceremony
- March 22-23 Wilson Surveillance Audit
- March 23-24 Stadler's Surveillance Audit
- March 27-28 Plant City Surveillance Audit

- April 1 VEEP Annual Report Due (VA facilities)
- April 4 Gwaltney, Smithfield and Ham & Products Emission report due
- April 4 Smithfield Transportation-Smithfield Internal Audit
- April 15 Air Permit fees due to DEQ (Smithfield, Gwaltney and Ham & Products)
- April 16 Easter
- April 25 Smithfield Transportation-Tar Heel Internal Audit
- April 18-20 Environment Virginia Conference
- April 22 Earth Day

EMS Corner

Plant City took recycling and gave it a new twist! Plant City, like many facilities, implemented a recycling environmental project at the facility.

One employee, Sangiam Church, took it to heart and modified a pastime for herself. Sangiam was skilled at making baskets from traditional materials but she is now creating baskets from scrap straps. She uses anywhere from 20 to 80 straps per basket and a medium-sized basket is generally 14"x 14"x 18" inches high. It takes about 2-3 hours to do each basket.

Each basket is unique and has several features that make them ideal for many uses. They are usable in wet conditions, can hold up to several pounds and, due to the wide base, don't tip over easily. They are commonly used as lunch baskets, pocket books, and general decorations. They also make great Easter baskets!

Ms. Church, pictured below, has also taken the time to teach a group of others, including several youths, how to create the baskets. As a group, they have made approximately 2,500 baskets!



New Legals

...The Virginia House has passed bills that change the allocation of litter control and recycling grants.

...Virginia DEQ will be developing policies and procedures to allow the burning of vegetative waste at landfills, which have stopped accepting waste, but have not yet been released for development.

...Virginia House bill has mandated the removal of mercury switches prior to demolition of certain motor vehicles.

Drinking water

EPA just released the drinking water disinfectant standards. Maximum contaminant level goals for Chloroform, Monochloroacetic acid and trichloroacetic acid standards have been put into place. The EPA also changed monitoring, public notice and reporting rules for total trihalomethanes and haloacetic acid. More information is available at the EPA web site.

Tax Break Anyone?

Is your facility looking to replace cars? For each hybrid vehicle purchased, the IRS will give up to \$3100 back in tax credit if purchased in 2006. The approved vehicles included Honda Civic, Ford Escape, and Toyota Prius. There are even rebates available on GM vehicles -- Silverado has a modest \$250 credit. As with anything, there is a catch. The numbers of credits are limited on a per vehicle style basis.

OK, Fine!

Another food industry company recently received a fine for failing to monitor the temperature and maintain documentation of the non-contact cooling water being discharged from the facility. The water was over the permitted limit of 86

degrees Fahrenheit. The company was fined \$138,513, with an additional \$100,000 for to fund two community service programs.

SPCC without PE

EPA is working on a proposal that will allow some companies storing less than 10,000 gallons of oil to self certify their Spill Prevention and Countermeasure Controls. This would eliminate the need to have a professional Engineer seal the plan. Estimated date of proposal becoming law is unavailable at this time.



Docking the energy clock

Looking for a place to do some energy reduction? Look at the shipping/docking areas. Replacing docking shelters can help cut energy cost by 85%. Where there is light, there is cooling energy lost. In dealing with a business where temperature control is essential to the product we produce and the number of doors on any given shipping dock, this could be an opportunity for big savings. Types of trailers also play a part. Doors that swing out create larger air gaps than roll up doors. Soft dock shelters or seals, help reduce energy lost and can help prevent some pests or foreign objects from entering the facility.



A sweet good bye to Winter

Just as you're getting used to the late, surprise snowstorms, here is an interesting tidbit. In the

northern United States, the early spring signifies the time for maples trees to begin sap production. A maple tree's sap starts to rise when daytime temperatures are above 40, but the nights are still below freezing. Each tree produces about 20 gallons of sap which, when boiled to syrup, yields about 2 quarts. This process can take up to 5 days, depending on the amount and method of boiling. It's an added bonus considering that the trees act not only as filters for air emissions, but water absorbents too. As a sweet environmental project, consider planting a sugar maple in your yard.

E-cycling's Give and Take

Federal Prison Industries, which does business as Unicor, along with the Arkansas Department of Environmental Quality, has launched a pilot project to help not only rehabilitate computers, fax machines and other e-wastes, but people too. The company has tapped into the federal prison system to assist in dismantling and sorting the components for further reuse. Residents of Arkansas can call a 1-800 number, get a box delivered to their home for shipment by Federal Express and their equipment is shipped to the prison for recycling, at no cost to the resident. In fact, the residents never have to leave their homes to dispose of their old e-waste. In 2004, the Federal Correctional Institution in Texarkana, Texas, recycled 4.8 million pounds of electronic wastes. Some people were concerned about their privacy with the prisoners dismantling the components, but those concerns, along with concerns over the prisoners' health due to the levels of heavy metals in the components, have been eased by inspections of the process. Arkansas has passed legislation that will ban electronics in their landfills, effective Jan. 1, 2008, unless they lack the infrastructure designed to handle the recycling of e-wastes. This

is a first by Arkansas to help effectively remove a waste stream from the landfills.



Cool Roof

EPA conducted studies on the roofs of industrial America and found a not so startling fact. 90% of the country has dark colored rooftops. Big deal, right? Well, yeah, it is, if you want low energy bills. On dark rooftops, temperatures can soar as high as 150 to 190 degrees, not ideal if you are trying to refrigerate a building. So what is an answer? Cool Roofing is a type of roofing system that has two important roofing properties, high solar reflectance and a high thermal emittance. These roofs can reduce energy costs for cooling a building by 20-70%, depending on the slope of the roof and area. Reflectance is the amount of energy reflected by the surface, and thermal emittance is the amount of energy a material can radiate away after it is absorbed.

Most conventional roofs had low reflectance (0.05 to 0.25) and low thermal emittance (150-190 degrees). Cool roofs have reflectance in the 0.6 to 0.7 range and high emittance (typically 100 to 120 degrees). Listed below are some common type roof reflectance ranges:

Tar & Gravel	0.03- 0.18
Red/Brown Tile	0.10- 0.35
White Paint	0.5-0.9
Colored Paint	0.15-0.35
Corrugated Roof	0.10-0.15

They not only lower temperatures of the roof, saving on cooling costs, but also extend the life of the roof itself. Reflecting the solar energy, and ultraviolet radiation slows the deterioration process of the buildings. There is a wide range of products available for use in both low sloped and sloped building applications.

So how well do these roofs hold up over time? Is there high maintenance associated with this technology? The need for maintenance is best addressed when shopping the materials. A cool roof can lose up to 15% of its reflective capabilities in the first year due to debris, dust and dirt, but that is dependent on the slope as well. The reflective quality can be greatly restored by cleaning or washing the material. Re-applying materials can also address this. Some products are recommended to be re-applied every 10 years.

Environmental Olympics

Countries fight to win the right to host the Olympics. The economic advantages to both the country and its cities continue even after the events are over. But the environmental effects can be even longer lasting. Turin's recent events can now boast as being the Greenest winter Olympics ever. The town organizers used several strategies to help in ensuring the smallest impact to the environment.

The use of public transportation options included clean burning buses and electric-powered equipment. The town initially required 457,000 cubic yards of water to make the artificial snow needed for the winter events. By switching to lower water-consuming snow cannons, they only needed 261,000 cubic yards. This also helped to

ease some environmental concerns of land impacts because man-made snow is up to 5 times heavier than natural snow. The town even arranged to truck tons of sewage to urban facilities better able to handle the larger amounts of sewage, a potential form of harm, from the small mountain village. Areas that were cleared of trees to build new bobsled and ski runs had trees planted elsewhere to make up for their loss. Even the Olympic village, hosting 2,500 athletes, went green, with solar powered hot water, low energy lighting, and rainwater irrigation. The architecture even used the southern facing windows to help aid in energy efficiency.

Although UN Environmental Programs and European Union praised these measures, other environmental groups rated the Turin events as a "C". The reasons cited included the destruction of habitats of local wildlife in the area. The native wolves of this area, estimated at 250, were almost made extinct through hunting. Those left were occupying some of the area used for the Olympics, but have since moved their packs main area. Other wildlife affected included bears and lynx. Many groups would like to see the Olympics consider using or modifying existing areas that have already been developed, rather than continually pushing for new construction.

